



Consider the following database schema:

- Instructor(InstNo, Name, Rank)
- Student(StudentNo, Name, Address, EnrollID, GraduatedD)
- Course(CourseNo, Title, nbHours, InstNo)
InstNo references Instructor(InstNo)
- Take(StudentNo, CourseNo, Grade)
StudentNo references Student(StudentNo)
CourseNo references Course(CourseNo)

Exercise 1

Write the following functions in TSQL:

- The grade average of a given student ;
- A function that gets the list of courses taught by "Full" instructors;
- A function that gets the list of graduated students before a given date;
- A function that gets for each student the name and the status obtained as follows:
 - if the average is greater than 10, the status should be equal to 'Succeeded'
 - otherwise, the status should be equal to 'Failed'
- A function that returns the number of students enrolled in courses given by "Assistant" instructors

Exercise 2

Write in TSQL the following constraints:

- The number of courses taken by a student must be less than 5;
- The courses of "math" should be taught only by full instructors;
- The number of hours taught by an instructor should be between 250 and 300
- The age of the professor must be greater than the age of his students;
- A course should be taken by at most 40 students;
- The total course hours taken by a student should be less than 600.